

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An information retrieval system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of said information items, so that similar information items map to nodes at similar positions in the array of nodes; said system comprising:

a data network;

an information retrieval client system connected to said data network; and

a plurality of information item storage nodes connected to the data network,

wherein each storage node comprises a store configured to store a plurality of information items and an indexer, the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item, the indexer further configured to send the data abstracting the information item to the client system via said data network, the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system, to cause data abstracting information items which have not previously been transmitted to the client system to be forwarded to the client system, and to update the register in accordance with the data abstracting information items which were forwarded to the client system, and

said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to  $\pm\frac{1}{2}$  the node separation to identical information items.

Claim 2 (Previously Presented): The system according to claim 1, wherein said indexer at each storage node is operable to transmit data to said client system to said client system in batches; each batch comprising at least data derived from some of those information items stored at that storage node for which data has not previously been transmitted to said client system.

Claim 3 (Previously Presented): The system according to claim 2, wherein each batch of data comprises data derived from those information items stored at that storage node for which data has not previously been transmitted to said client system.

Claim 4 (Previously Presented): The system according to claim 1, wherein said indexer at each storage node is operable to transmit to said client system a batch of data derived from information items stored at that storage node in response to an information retrieval operation at said client system.

Claim 5 (Previously Presented): The system according to claim 1, wherein said indexer at each storage node is operable to detect an information item which is modified or newly stored at that storage node and, in response to such a detection, to send a batch of data derived from that information item to said client system.

Claim 6 (Previously Presented): The system according to claim 1, wherein said data network is an internet network.

Claim 7 (Previously Presented): The system according to claim 6, wherein one or more of said storage nodes are internet search servers.

Claim 8 (Previously Presented): The system according to claim 1, wherein said information items are at least partially textual; and said data derived from a stored information item comprises the whole of said textual content of that information item.

Claim 9 (Previously Presented): The system according to claim 1, wherein said data derived from a stored information item comprises textual data indicative of said content of the stored information item.

Claim 10 (Previously Presented): The system according to claim 1, wherein said client system comprises a graphical user interface for displaying a representation of at least some of said nodes as a two-dimensional display array of display points within a display area on a user display.

Claim 11 (Previously Presented): The system according to claim 10, wherein said client system comprises: (i) a user control for defining a two-dimensional region of said display area; and (ii) a detector for detecting those display points lying within said two-dimensional region of said display area.

Claim 12 (Previously Presented): The system according to claim 11, wherein said graphical user interface is operable to display a list of data abstracting information items, being those information items mapped onto nodes corresponding to display points displayed within said two-dimensional region of said display area.

Claim 13 (Previously Presented): The system according to claim 12, wherein said client system comprises a user control for choosing one or more information items from said

list; said graphical user interface being operable to alter manner of display within said display area of display points corresponding to selected information items.

Claim 14 (Previously Presented): The system according to claim 1, wherein said data derived from an information item includes an identification of said storage location of that information item.

Claim 15 (Previously Presented): The system according to claim 14, wherein said identification comprises a universal resource indicator (URI).

Claim 16 (Currently Amended): An information storage node for use in an information retrieval system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of said information items, so that similar information items map to nodes at similar positions in the array of nodes; said storage node being connected via a data network to an information retrieval client system including a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to data received from said storage node, the node position generating unit configured to add a random dither component of up to  $\pm\frac{1}{2}$  the node separation to identical information items; the storage node comprising:

a store configured to store a plurality of information items and an indexer, the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item, the indexer further configured to send the data abstracting the information item to the client system via said data network, the indexer configured to maintain a register indicative of whether the data abstracting the information item has

previously been transmitted to the client system, to cause data abstracting information items which have not previously been transmitted to the client system to be forwarded to the client system, and to update the register in accordance with the data abstracting information items which were forwarded to the client system.

Claim 17 (Currently Amended): An information retrieval client system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of said information items, so that similar information items map to nodes at similar positions in said array of nodes; said client system being connectable via a data network to one or more information item storage nodes each comprising a store for storing a plurality of information items and an indexer, the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item, the indexer further configured to send the data abstracting the information item to the client system via said data network, the indexer configured to maintain a register indicative of whether the data abstracting the information item has previously been transmitted to the client system, to cause data abstracting information items which have not previously been transmitted to the client system to be forwarded to the client system, and to update the register in accordance with the data abstracting information items which were forwarded to the client system, the client system comprising:

a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to  $\pm\frac{1}{2}$  the node separation to identical information items.

Claim 18 (Previously Presented): A portable data processing device comprising the client system according to claim 17.

Claim 19 (Previously Presented): A video acquisition and/or processing apparatus comprising the client system according to claim 17.

Claim 20 (Currently Amended): An information retrieval method in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the array of nodes in a system comprising a data network, an information retrieval client system connected to said data network, and one or more information item storage nodes connected to said data network; said method comprising:

storing a plurality of information items at each storage node;

generating by each storage node data including a text-based abstraction of an information item stored at that storage node, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item;

maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

forwarding data abstracting information items which have not previously been transmitted to the client system from the storage node to the client system;

updating the register in accordance with the data abstracting information items which were forwarded to the client system; and

generating a node position in respect of each information item represented by said received data by said client system responsive to the data abstracting the information item received from the indexer of the storage node, the generating a node position including

adding a random dither component of up to  $\pm\frac{1}{2}$  the node separation to identical information items.

Claim 21 (Currently Amended): A method of operation of an information storage node for use in an information retrieval system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of said information items, so that similar information items map to nodes at similar positions in the array of nodes; said storage node being connectable via a data network to an information retrieval client system having logic, responsive to data received from the storage node, for generating a node position in respect of each information item represented by the received data, the storage node configured to add a random dither component of up to  $\pm\frac{1}{2}$  the node separation to identical information items; said method comprising:

storing a plurality of information items;

generating data including a text-based abstraction of the information items, the data abstracting the information items, when stored, requiring less storage capacity than a corresponding information item; and

maintaining by an indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

forwarding data abstracting information items which have not previously been transmitted to the client system from the storage node to the client system; and

updating the register in accordance with the data abstracting information items which were forwarded to the client system.

Claim 22 (Currently Amended): A method of operation of an information retrieval client system in which a set of distinct information items map to respective nodes in an array

of nodes by mutual similarity of said information items, so that similar information items map to nodes at similar positions in the array of nodes; said client system being connectable via a data network to one or more information item storage nodes each comprising a store for storing a plurality of information items and an indexer, the indexer configured to generate data including a text-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item, the indexer further configured to send the data abstracting the information item to the client system via said data network, said method comprising:

generating a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, generating a node position including adding a random dither component of up to  $\pm\frac{1}{2}$  the node separation to identical information items;

maintaining by the indexer of each storage node a register indicative of whether the data abstracting the information item has previously been transmitted to the client system;

forwarding data abstracting information items which have not previously been transmitted to the client system from the storage node to the client system; and

updating the register in accordance with the data abstracting information items which were forwarded to the client system.

Claim 23 (Previously Presented): A non-transitory computer readable medium including computer executable instructions, wherein the instructions, when executed by a processor, cause the processor to perform the method according to any one of claims 20 to 22.

Claims 24-26 (Canceled).



Claim 27 (Previously Presented): The system according to claim 1, wherein the data is metadata derived from the information item.

Claim 28 (Previously Presented): The system according to claim 1, wherein the data is the information item with all stop words removed.

Claim 29 (Previously Presented): The system according to claim 1, wherein the data is a list of all stem words included in the information item.

Claim 30 (Previously Presented): The system according to claim 27, wherein the data is a feature vector derived from the metadata.

Claim 31 (Currently Amended): An information retrieval system in which a set of distinct information items map to respective nodes in an array of nodes by mutual similarity of said information items, so that similar information items map to nodes at similar positions in the array of nodes; said system comprising:

- a data network;
- an information retrieval client system connected to said data network; and
- a plurality of information item storage nodes connected to the data network,

wherein each storage node comprises a store configured to store a plurality of information items and an indexer, the indexer configured to generate data including a feature-based abstraction of an information item, the data abstracting the information item, when stored, requiring less storage capacity than a corresponding information item, the indexer further configured to send the data abstracting the information item to the client system via said data network, the indexer configured to maintain a register indicative of whether the data

abstracting the information item has previously been transmitted to the client system, to cause data abstracting information items which have not previously been transmitted to the client system to be forwarded to the client system, and to update the register in accordance with the data abstracting information items which were forwarded to the client system, and

said client system includes a node position generating unit configured to generate a node position in respect of each information item represented by said received data responsive to the data abstracting the information item received from said indexer of a storage node, the node position generating unit configured to add a random dither component of up to  $\pm\frac{1}{2}$  the node separation to identical information items.

Claim 32 (New): The system according to claim 1, wherein the node position generating unit is configured to add a random dither component of up to  $\pm\frac{1}{2}$  the node separation to substantially identical information items.